Scanner Basic Configuration

FOV 60°  Part-No. 17R00-00-109-00
FOV 80°  Part-No. 17R00-00-108-00

2D-Laser Scanner LMS-Q240i

FOV 60°  Part-No. 17R00-00-009-00
FOV 80°  Part-No. 17R00-00-008-00

- Laser transmitter & receiver front end
- Motorized mirror scanning mechanism
- Signal processing electronics
- Internal power supply electronics, input voltage 18 – 32 V DC

Detailed specifications and laser classification according to the latest datasheet LMS-Q240i.

Interfaces, integrated

- TCP/IP Ethernet Interface, providing smooth integration of the LMS-Q240i data into a 10/100 MBit/sec, twisted-pair (TP) Local Area Network (LAN). The interface acts as a server allowing remote configuration and data acquisition via a platform-independent TCP/IP Ethernet Interface.
- ECP parallel data Interface
- RS232, 19.2 kBd for scanner configuration via PC or laptop

Cables

- Part-No. 02Z03-02-003-00 TCP/IP Cable M12-M12, 3 m
- Part-No. 02Z03-01-001-00 TCP/IP Cable M12-RJ45, 0.3 m
- Part-No. 02Z03-01-002-00 TCP/IP Cable M12-RJ45 cross over, 0.3 m
- Part-No. 02Z03-02-001-00 Serial Data Cable, RS232, 3 m
- Part-No. 02Z03-02-002-00 Parallel Data Cable, ECP, 3 m
- Part-No. 13R09-06-001-00 Power Supply Cable, 10 pole connector, 6 m

RiScanLib-2D Library  Part-No. 02Z06-02-012-00

For straightforward implementation of data acquisition in user applications, based on COM technology, including demo program RiSCAN2D for data acquisition and display with C++ source. 1 license bundled with serial number of scanner.

- Examples in Visual C++ and Delphi
- For operating systems WINDOWS XP, WINDOWS 2000 SP2 or above
**RiPORT Driver**  Part-No. 02Z06-02-003-00

- Low-level data acquisition via ECP on PC platform
- Code examples for C++
- For operating systems WINDOWS XP, WINDOWS 2000 SP2 or above

**Software Maintenance for 12 months**  Part-No. 02Z06-05-001-00

- Free software updates
- E-mail and telephone support

**Firmware Maintenance for 12 months**  Part-No. 02Z06-05-015-00

- Free software updates

**User's Manual** (in English language)

"Technical Documentation & Users Instructions"
including, between other things, instructions for: Safety, Installation, Operation, etc.
Scanner Hardware Options

INTERNAL SYNC TIMER  Part-No. 02Z07-04-001-0
for GPS-synchronized time stamping of scan data

The scanner optionally offers a time-stamping mechanism to add real-time-clock information to each laser range measurement. Taking full advantage of this feature needs:

- a GPS synchronization output line, sending SYNC pulses in periods of 1 second (1 PPS), permanently connected to a scanner input line (Trigger input).
- the GPS serial RS232 port connected to a PC controlling the scanner for time synchronization purposes (by means of the RIEGL software tool RiSYNC) prior to scan data acquisition or for synchronization checks.

Both SYNC pulse as well as RS232 interface are standard for GPS receivers.

RiSYNC Single User License  Part-No. 02Z06-02-033-00
Software tool to synchronize the scanner's time with the time gained by the Global Positioning System (GPS)

RiSYNC License Scope of Delivery:
- CD coming with software setup and online help-manual
- License Certificate including License Code related to serial number of RIEGL scanner in use
- User's manual in printed form
- E-Mail and telephone support for 12 months from delivery
- Software updates within 12 months from delivery
SCAN SYNC Scanner Rotation Synchronization Part-No. 02Z07-04-002-00

for synchronizing scan lines to external timing signal

SCAN SYNC for RIEGL 2D Laser Scanners allows:

- Synchronization of the data acquisition of a single laser scanner or several laser scanners to an external event pulse, typically the PPS-signal of a GPS receiver, whereas this event pulse can be fed to other units of a data acquisition system for synchronized operation (e.g. a camera is triggered with start of a scan line).

- Increasing the data acquisition speed by operating several laser scanners, as in some data acquisition systems the acquisition speed of a single laser scanner may be not sufficient. Operating several laser scanners scanning the same angular range requires the scanners to be synchronized to achieve a well-defined scan pattern and to avoid interference between the scanners.

SPECIAL POWER SUPPLY CABLE with Adapter

Part-No. 16R09-06-006-01 + Part-No. 16R09-06-002-00

Special Power Supply Cable for external connection and reset of the above mentioned hardware scanner options "Internal Sync Timer" and "SCAN SYNC", length approx. 4 m, delivered with an adapter cable, length 1 m, from 7 pole connector to banana plugs.
Optional Accessories

Heavy-Duty Carrying Case
Part-No. 02Z05-01-014-00
with 4 hinged handgrips and wheels, splash-water proof, foam lined to fit shape of LMS-Q240i, cables etc., dimensions 820 x 520 x 290 mm

L-brackets

Part-No. 17R09-06-005-00 for mounting position 90°
Part-No. 17R09-06-001-00 for mounting position 0°

Shock proof mount
Part-No. 17R09-06-004-00
for LMS-Q240i